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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Jean Francois Benoist

Application No.: 09/733,041

Filed: December 11, 2000

For: NOZZLE FOR AN AEROSOL RECEPTACLE

Group Art Unit: 3751

Examiner: R. Evans

Docket No.: 108121

#16/ Reply
Brief
12/9/02
Brewer

REPLY BRIEF

Director of the U.S. Patent and Trademark Office
Washington, D.C. 20231

Sir:

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The following remarks are directed to the new points of argument raised in the
Examiner's Answer dated October 2, 2002.

I. Lund Fails To Disclose The Specific Combination Of Parameters Needed To Achieve
The Subject Invention Of Claims 1, 3, 5, 7, 10-12, 23, 33 and 34.

Claim 1 recites a swirling effect nozzle having substance feed channels opening out
into a swirling chamber communicating with an outlet orifice, wherein the ratio A_p/A_o is less
than or equal to 0.5, and the ratio $A_p/(D_s \bullet D_o)$ is less than or equal to 0.2; wherein:

A_p is the smallest total section offered by the channels to the passage of the substance;
 A_o is the section of the outlet orifice; D_o is the diameter of the outlet orifice; and D_s is the
diameter of the swirling chamber.

The Examiner's Answer at page 4 newly asserts that "Lund teaches all of the
necessary variables to achieve the outcome of the ratio, the presentation of those variables

can be inherently expressed, as a ratio as done above and if done would meet the recited range of the ratio." The Appellant respectfully disagrees.

While Lund discloses broad ranges for the sizing of the individual nozzle elements, when read "as a whole" it fails to disclose the specific combination of parameters needed to achieve the subject invention with "sufficient specificity" to constitute anticipation and fails to appreciate the unexpected results which are produced by the subject invention. The only motivation for the Examiner's "picking and choosing" of values must come from impermissible hindsight consideration of the Appellant's disclosures, since selection of such arbitrary values contradicts specific teachings of important sizing relationships in Lund and thus would not have been inherent or even suggestive to try from these teachings.

For example, rather than using the orifice diameter (OD) of 0.35 in the Lund example, the Examiner arbitrarily "picks" an OD of 0.5 from a completely different prior art nozzle discussed in the background of Lund in the context of known nozzles that have problems. Thus, it is incorrect to assert that the claimed invention is inherently expressed by the teachings of Lund. As such, Lund cannot be used as an anticipating reference under 35 U.S.C. §102.

II. It Would Not Have Been Obvious To Modify The Teachings Of Lund To Arrive At The Subject Matter Of Claims 2, 4, 6, 8, 9, and 24-32.

Regarding the length of the swirl chamber, the Examiner's Answer admits that Lund does not disclose the claimed ranges for the length of the swirl chamber. However, it nonetheless asserts that Lund discloses that the EA (exit area) depends on the length of the swirl chamber and also that the EA is one of the variables that is critical in achieving the desired results. Based on this disclosure, the Examiner's Answer further asserts that the length of the swirl chamber would be chosen to achieve the desired results wanted by the user

and that it would be obvious to one of ordinary skill in the art to make the length of the swirl chamber within the claimed range of 0.1 to 0.2 mm. The Appellant respectfully disagrees.

Merely reciting that EA depends on the length of the swirl chamber and that EA is a critical value in achieving the desired results of Lund, does not provide motivation to one of ordinary skill in the art to choose a length of the swirl chamber within the claimed range of 0.1 mm to 0.2 mm. Lund only discloses that the height H of each vane is preferably maintained generally constant over the radial length of a vane (col. 5, lines 22-26).

Regarding claims 2, 4, 6 and 25-29, the Examiner's Answer asserts that Lund discloses at column 5 that these variables are important in achieving the desired spray and also asserts that Lund discloses in column 7, lines 16-19, that "deviation from these values for appropriate different applications in/or dispensing of various liquids should be possible." However, the Examiner's Answer fails to include the rest of the quoted sentence, where it is stated "without affecting the spray characteristics of the present invention." As such, this statement is only pertinent to the spray characteristics of Lund and would not motivate one of ordinary skill in the art to vary the variables of Lund in order to achieve the specified ratios recited in the claimed invention.

Regarding claims 13-22 and 35-39, the Examiner's Answer asserts that it would have been obvious to replace the manual pump receptacle of Lund with an aerosol receptacle like the one shown by Heeb et al., since there is nothing that precludes the atomizing nozzle of Lund on an aerosol container. The fact that nothing precludes the combination of two features does not provide the necessary motivation to one of ordinary skill in the art to combine those features. Further, the Examiner's Answer asserts that Lund discloses that the nozzle may be used in different applications (see column 7, lines 15-19). Column 7, lines 15-19 of Lund merely asserts "that deviation from these value for appropriate different applications and/or for dispensing of various liquids and viscosities should be possible

without affecting the spray characteristics of the present invention." As such, this statement is only concerned with the spray characteristics of present invention and would not be motivation to one of ordinary skill in the art to pick and choose variables in order to arrive at the spray characteristics of the invention claimed in the instant application.

III. Conclusion

When read "as a whole", Lund fails to disclose the specific combination of parameters needed to achieve the claimed invention and cannot be used as an anticipating reference under 35 U.S.C. §102.

Lund also cannot be used to sustain a rejection under 35 U.S.C. §103, as it would not have been obvious to one of ordinary skill in the art to modify the teachings of Lund to arrive at the claimed invention. Lund fails to disclose the desirable effects of the subject invention and when read "as a whole" teaches away from the combination of specific parameters needed to achieve the narrow range of values recited in Appellant's claims. Burke and Heeb also fail to overcome the deficiencies of Lund, and thus cannot be used to sustain rejections under 35 U.S.C. §103, since no motivation exists to modify the disclosures of the applied references to obtain the elements and advantages of the Appellant's claimed invention.

For these reasons, as well as the reasons addressed in the Appellant's Appeal Brief, it is respectfully submitted that the Lund reference fails to anticipate the claimed invention and that it would not have been obvious to a person of ordinary skill in the art, at the time the invention was made, to practice the claimed invention in view of the applied references.

For all of the above reasons, Appellant respectfully requests this Honorable Board to reverse the rejection of claims 1-39.

Respectfully submitted,



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